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UMASS/AMHERST



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EMPLOYMENT



KNOWLEDGE



PROSPERITY

IMPACT

INCREASING THE COMMON WEALTH

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GROWTH



EARNINGS

DOCUMENTS COLLECTION
UNIVERSITY OF MASSACHUSETTS
AMHERST, MA 01003

OCT 11 1997

THE ECONOMIC IMPACT OF UMass Amherst

Throughout the Pioneer Valley – And Beyond

More than a century ago, the founders of the land grant universities asked those schools to educate and to build—to build states, to build a nation, to build on a dream. Today, the economic evidence makes clear that the University of Massachusetts Amherst has carried out that mission with distinction.

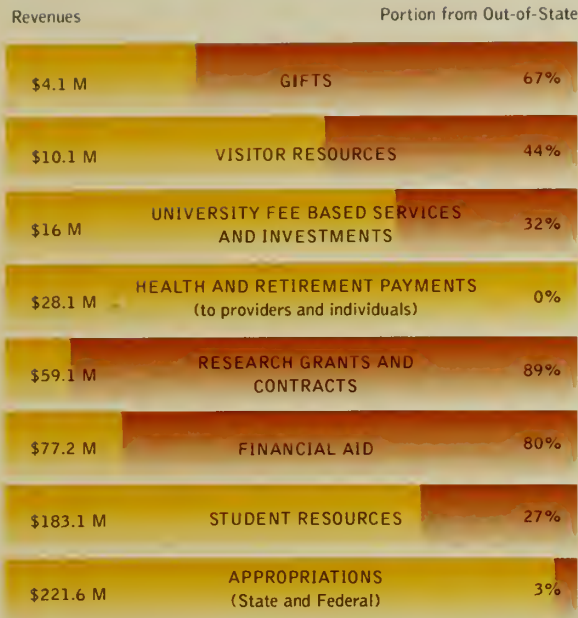
New data show that the Amherst campus brings more than \$1 billion in total economic activity to the Pioneer Valley—its home region within Hampden, Hampshire, and Franklin counties. Ten thousand jobs can be attributed to the University—5,000 on campus and 5,000 elsewhere in the Valley. More than three dozen companies, employing nearly 1,000 persons and generating more than \$100 million in annual revenue, have evolved from University research.

The University of Massachusetts Amherst is a powerful economic force—within the Valley and throughout the Commonwealth. Its impact is a result of its national distinction built over decades, the magnitude of the enterprise, and its contemporary role as Massachusetts' public land grant university

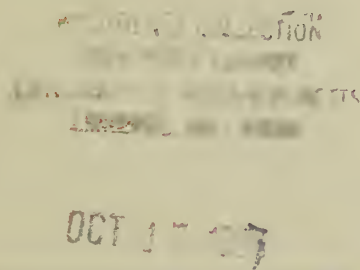
\$1 BILLION DOLLARS A YEAR



A Billion Dollar Enterprise



\$600M in REVENUES attracted to the UMass region



A Major Employer

UMass Amherst is the largest employer in western Massachusetts, and one of the largest employers in the state, with an annual payroll of \$190 million. In 1995, the campus employed nearly 5,000 full-time faculty and staff and thousands of part-time student employees. When compared to private organizations, the Amherst campus ranks among the state's 20 top companies in terms of the number of full-time staff .

UMass Amherst's collective buying and revenue-generating power throughout the Pioneer Valley region makes it comparable to other large businesses whose impact derives from their size. What is even more significant for western Massachusetts is the University's distinctive ability to foster a broad range of related economic activity:

- **Stimulating** \$700 million of new spending and related economic activity.
- **Developing** new spin-off companies which generate over \$100 million in annual revenues.
- **Increasing** the personal earnings of Valley alumni by \$250 million per year.
- **Adding value** to existing organizations through dozens of outreach programs.
- **Providing** intellectual, cultural and athletic activities that help attract and retain businesses.

No single organization comes close to UMass Amherst in determining the economic destiny of the Pioneer Valley. This impressive scope of influence positions UMass Amherst as a billion-dollar force in the western Massachusetts economy.

An Economic Powerhouse

New research confirms UMass Amherst's role as a large-scale importer of revenue.¹ Of the \$600 million the campus attracts to the region each year, approximately one-third comes from out-of-state public and private funds, one-third is funded by the Massachusetts legislature, and the remaining third is derived from in-state private resources, such as tuition and visitor spending. If the University were a private corporation, UMass Amherst would rank among the top companies in the state, in terms of gross revenues.

The regional impact of University-based spending is multiplied at the local level. University funds expended in the Pioneer Valley region, including visitor, student, faculty and institutional spending on goods and services, are estimated at \$273 million per year. These resources produce a "ripple effect" as they are spent and respent by individuals and businesses. The "rippling" expenditures from the University ultimately contribute more than \$700 million to the region each year, and generate an additional 5,000 non-University jobs in the Pioneer Valley. Across the state, the cumulative effect of these expenditures is even greater – a total of \$474 million in spending on goods and services, and \$1.2 billion in related "rippling" expenditures .

Lifelong Contributions

Another “rippling” effect of a university’s impact takes place when its graduates go on to gain national prominence. The nation recognizes the extraordinary roles of UMass Amherst alumni such as **Jack Welch** ‘57, Chairman and CEO of General Electric; **Madeline Kunin** ‘56, U.S. Ambassador to Switzerland; **Jack Smith** ‘60, CEO of General Motors; and **Bill Cosby** ‘76G, a major force in the entertainment industry.

In Massachusetts, the impact of UMass Amherst is felt through the efforts of the 73,000 alumni who teach in our schools, staff our hospitals, represent us through elected office, enrich our lives through the arts, develop software, market our products, engineer our technology, monitor our environment, plan our cities, and care for our needy and our young. What is particularly important for Massachusetts is that almost 60% of UMass Amherst’s 130,000 alumni stay in the Commonwealth, providing lifelong contributions to the state’s economy.

Increased Earnings

Over a lifetime, the average college graduate will earn \$450,000 more than a person with only a high school diploma. An advanced degree adds an additional \$300,000 to the individual’s earning power. Using conventional estimates the 73,000 UMass Amherst alumni in Massachusetts add more than \$1 billion to the State’s economy each year, augmenting the tax base and stimulating local economies through greater expenditures. In the Pioneer Valley alone, the increased annual earnings of 20,000 UMass Amherst alumni are in excess of \$250,000,000.

Cultivating Tomorrow’s Leaders

Every year, UMass Amherst graduates thousands of knowledgeable, skilled alumni who go on to establish careers in the industries which drive the state economy, including high technology, manufacturing, health care, and financial services. UMass Amherst is a leading contributor to the pool of educated, versatile graduates that helps attract and retain businesses in Massachusetts.

UMass Amherst alumni have also assumed leadership roles in the Massachusetts business community. For example, **Kathleen Cote** ‘71, President and CEO of Computervision; **Robert Meers** ‘66, President and CEO of Reebok; **George Ditomassi** ‘57, COO of Milton Bradley; and **Marian Heard** ‘76, President, United Way of Massachusetts Bay, all lead organizations which have an impact on the economic health of Massachusetts.

Alumni Facts

- 56% of UMass Amherst alumni remain in Massachusetts.
- Two UMass Amherst alumni, **Jack Smith** and **Jack Welch**, were named by Time Magazine as being among the 10 most powerful people in America.
- UMass Amherst alumni in Massachusetts earn over \$1 billion per year more than they would as high school graduates.

To Name A Few More...

UMass Amherst alumni have established themselves in leadership positions throughout Massachusetts, in organizations representing a wide range of industries.

Stephen Albano ‘67, President and CEO, Offtech

Allan W. Blair ‘70, President, Western Massachusetts Economic Development Council

Carole A. Cowan ‘82, President, Middlesex Community College

Daniel Desmond ‘71, President, Kollmorgen Corporation/Electrico-Optical Division

George Dickerman ‘61, President, Spalding Sports Worldwide

Stephen Levy ‘62, Chairman Emeritus, BBN Corporation, and Chairman, Massachusetts Telecommunications Council

Maureen Skipper ‘76, President, Visiting Nurse Association and Hospice of the Pioneer Valley

Robert Weisel ‘72, CEO, Stone and Webster Engineering

One extraordinary example of alumni economic impact is the Mahoney family of Springfield. The three brothers all majored in chemistry at UMass Amherst.

Dick Mahoney ‘55 is the retired CEO of Monsanto; **Bill Mahoney** ‘55 is the Vice Chairman and COO of Witco; and **Bob Mahoney** ‘70 is the President and CEO of Citizens Bank of Massachusetts.

CREATE

LEARN

INVEST

LEAD

RESEARCH

MANUFACTURING

HEALTH CARE

COMP.
SCIENCE

Pioneer Valley
and Beyond



Growing New Businesses

UMass Amherst's faculty and researchers have established a number of companies within the Pioneer Valley. Their entrepreneurial spirit has generated nearly 1,000 jobs for regional and local residents, and strengthened UMass Amherst's research capabilities, as well as its national reputation. These spin-off companies attract over \$100 million in revenue from beyond the region, and have had a long-term, positive impact on the local economy. A few examples:

- **Amerinex Applied Imaging** (Amherst) produces image-understanding software, systems, tools and solutions for the application of computer technology to the automation of visual tasks.
- **Blackboard Technology Group** (Amherst) markets software application-building tools for such sophisticated applications as satellite scheduling, financial analysis, and automotive suspension design.
- **Millitech Corporation** (South Deerfield) manufactures and markets electromagnetic components and assemblies used in defense electronics systems and in research, communications and commercial applications.
- **Regional Economic Models** (Amherst) develops and applies models for economic forecasting and regional policy analysis.
- **National Evaluation Systems** (Amherst) is a national leader in developing and administering educational and professional testing programs.

Mass Ventures: Home-Grown Development

UMass Amherst was the motivating force in the creation of Mass Ventures, a private corporation whose mission is to grow emerging technology-based businesses in the Pioneer Valley. These objectives are accomplished through the following initiatives:

- **Creating, developing and attracting** high-growth entrepreneurial ventures in the region.
- **Adding value** to the commercially viable technologies generated from research at the University of Massachusetts, other colleges, and businesses.
- **Establishing** a \$20 million venture capital fund, the region's first.
- **Creating a network** of private investors who are committed to retaining and growing entrepreneurial companies in the region.
- **Stimulating** \$8 million in private financing of the Mass Venture Center, including an incubator facility for start-up companies.

For example, Mass Ventures worked with Sovereign Hill Software to develop a business plan which helped attract \$3 million of venture capital. Sovereign Hill grew out of research conducted at the University's Computer Science Department. INQUERY, one of Sovereign Hill's initial products, helps users quickly search and extract relevant information from large collections of text and other databases. The White House, the Library of Congress, Lotus Development Corporation, and the Internal Revenue Service are among the many organizations using INQUERY for information retrieval. With corporate offices at the Mass Ventures Center two miles from the University, Sovereign Hill plans to hire more than 100 people over the next several years.



Mass Ventures

Forging Partnerships

Science and Technology at Work

Companies emerging from the University's science and technology research efforts generate over \$100 million in revenues for the regional economy per year. The impact of these companies is doubled when one factors in the 1,000 jobs that have been created to support these new ventures.

Advanced Cell Technology	Land-Use
Amerinex Applied Imaging	Market Street Research
Amherst Process Instruments	Mediated
Amherst Product Group	Microcal
Antenna Design Associates	Microcal Software
Applied Computing Systems Institute of Massachusetts	Millimetrix LLC
Applied Econometrics	Millitech Corporation
Biomes	National Evaluation Systems
BioSolutions International	New England Cartographics
Blackboard Technology Group	Newshare Corporation
Clickshare Corporation	Polymer Laboratories
Critical Care Analytics	Precision Detectors
DataViews Corporation	Quadrant Engineering
Eco-Science Corporation	Regional Economic Models
Gempler	Sovereign Hill Software
Geometric Machines Corporation	Specular International
HaloGenetics	Valley Fibers Corporation
Howard Labs	Yankee Environmental Systems
KSE	

The impact of the Amherst campus on the local community includes serving as a source of knowledge, expertise, and technical assistance to local organizations. Each year, the University participates in dozens of projects that forge mutually beneficial partnerships between the UMass Amherst community and its neighbors in the Pioneer Valley. In **Springfield** alone, University faculty and staff have been involved in over 100 academic outreach programs in the schools, local government, business offices, neighborhoods and local hospitals.

UMass Amherst's outreach programs are most successful when they foster growth and learning on both sides of the partnership. For example, since 1988, the Massachusetts Small Business Development Center has partnered with Data Flute, a **Pittsfield** manufacturer of rotary carbide tools. The company asked the University to train its staff in ISO 9000 international quality standards in order to maintain Data Flute's competitive edge. University students participating in these projects have gained real-world market analysis and technical writing expertise, while producing concrete results for the company. In addition, University faculty have consulted on Data Flute's engineering and strategic planning issues, as well as the personnel management needs of this rapidly growing company. Owner David McCulloch gives the University much credit for his firm's doubled employment and quintupled revenues over the past eight years.

A Recipe for Success

The Massachusetts Nutrient Data Bank (MNDB), established and run by the UMass Nutrition Department, helps small businesses comply with the mandatory Nutrition Labeling Act of 1993, which requires food manufacturers to provide nutrition information in a standardized label format. While large companies have the resources to purchase the necessary software to calculate labeling information, small manufacturers have to seek other measures for achieving compliance. MNDB provides businesses **across the state** with computer assisted evaluations of dietary intake information for research, clinical, and educational programs, as well as regulation compliance.

UMass Amherst publishes a directory of its outreach programs. Contact the Office of Economic Development for a free copy of *We Mean Business: A directory of UMass Amherst resources for business and industry.*



UMass Amherst has a broad, significant, and positive impact on both the state and regional economies. The Amherst campus is your University. For that reason, we remain eager to develop further our role as an employer, a partner and an engine of economic development for the Pioneer Valley, the Commonwealth and beyond.



The Commonwealth is Our Campus

UMass Amherst extends its influence through outreach, research and lifelong education programs throughout the state.

For more information, please contact:

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Massachusetts
A M H E R S T

¹Field, Barry, and Seiene Weber. 1996.
*The Economic Impact of the University of
Massachusetts Amherst on the Economies
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Amherst: Office of Economic Development
publication.

